

FIG. 1

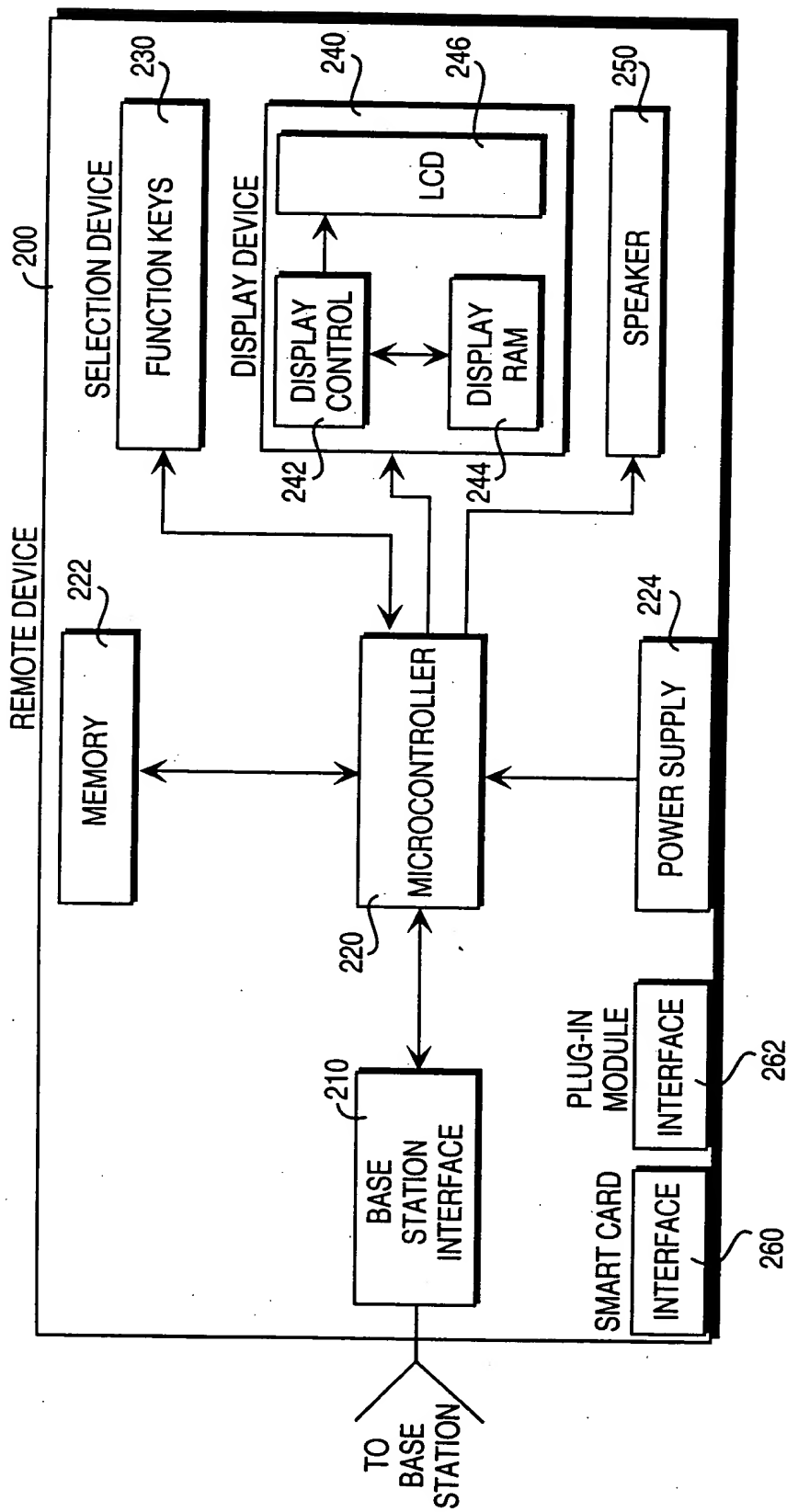


FIG. 2

FIG. 3A

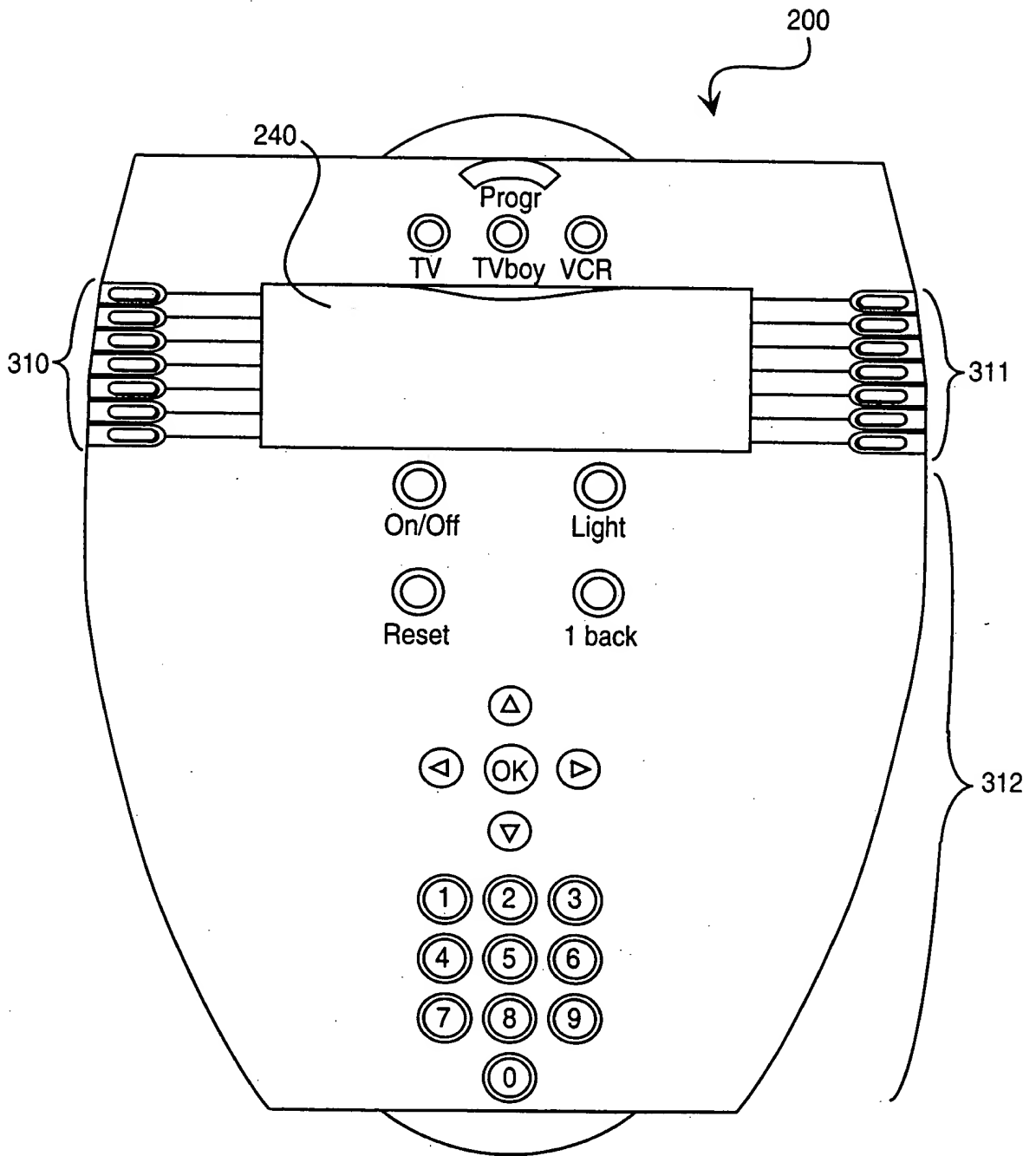


FIG. 3B

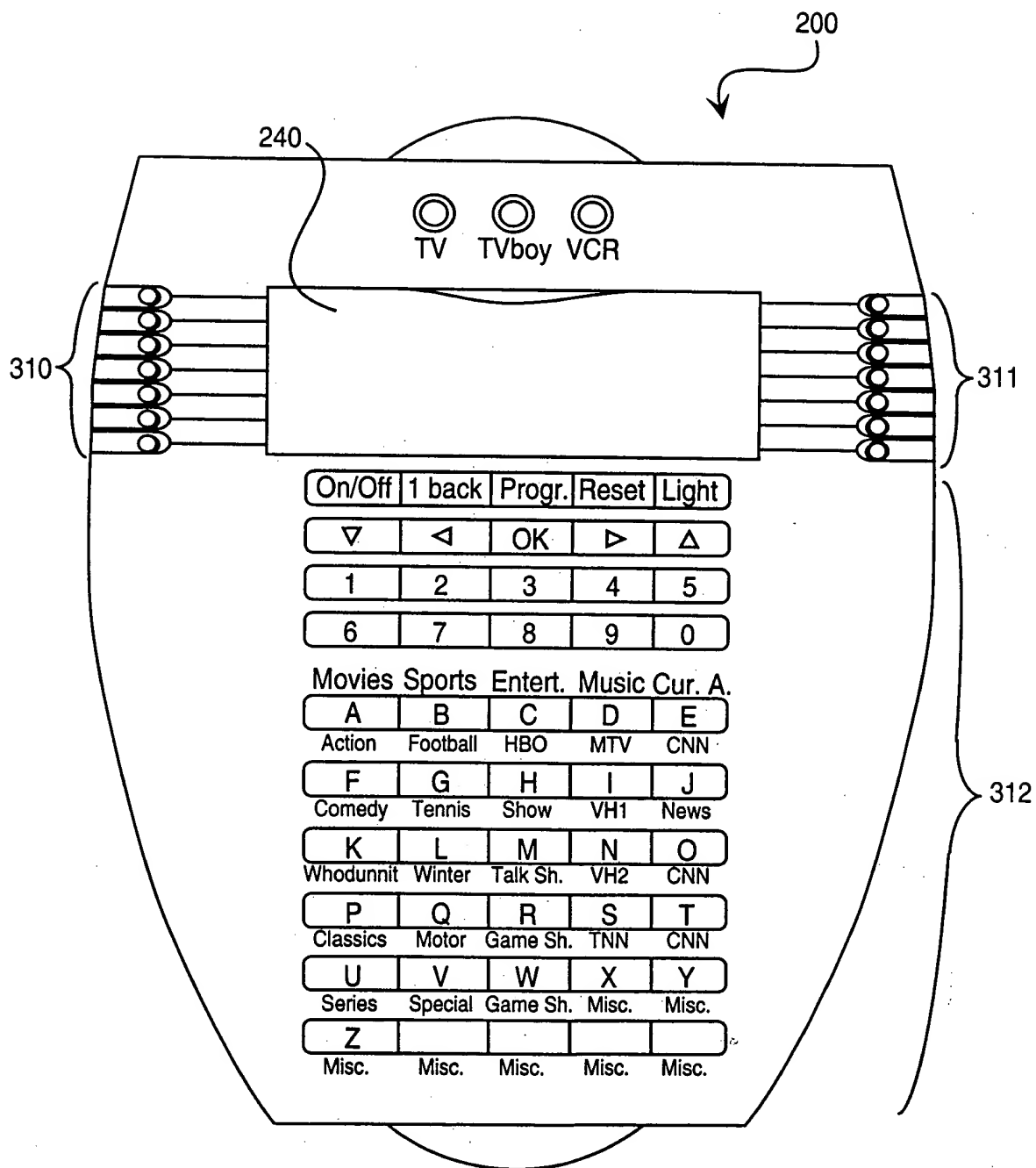


FIG. 3C

**KEY ACTIVATION
PROCESSING LOGIC**

MICROCONTROLLER WAITS FOR USER INTERACTION.

USER PRESSES A KEY CORRESPONDING TO A MENU ITEM. FOR EXAMPLE, "TYPE".

MICROCONTROLLER SCANS KEYBOARD MATRIX (EITHER DIRECTLY OR THROUGH SPECIALIZED INTEGRATED CIRCUIT).

MICROCONTROLLER DETECTS AND IDENTIFIES KEY PRESSED.

MICROCONTROLLER LOOKS UP CURRENT MODULE/STATUS AND INTERNAL TABLES, IDENTIFIES NEXT STEP: DISPLAYING THE TYPE-SUBMENU ON THE OPPOSITE SIDE AND EMPHASIZE "TYPE" ON THE FIRST SIDE

MICROCONTROLLER WRITES SUBMENU (E.G., MOVIE, SPORTS, ENTERTAINMENT, MUSIC, NEWS, ALL) INTO DISPLAY MEMORY, EMPHASIZES "TYPE" ON THE ORIGINAL SIDE (E.G., UNDERLINE, INVERTED, ARROW TO THE OTHER SIDE BEHIND "TYPE" ETC.)

MICROCONTROLLER SETS APPROPRIATE MODE/STATUS
(NOW IN FIRST LEVEL OF SUBMENU "TYPE") FOR NEXT
USER SELECTION (FURTHER SELECTION OR STEPPING BACK)

FIG. 4

EXTERNAL INFORMATION
PROCESSING LOGIC

MICROCONTROLLER INITIALIZES DECODER FOR
CONTINUOUS RECEPTION OF SPECIFIC DATA
PAGES/SUBPAGES. TUNER IS TUNED TO A
DEDICATED TV CHANNEL.

510

MICROCONTROLLER WAITS FOR DATA.

515

DECODER SIGNALS RECEPTION OF DATA.

520

MICROCONTROLLER READS OUT DATA,
STARTS DECODER AGAIN (IF NECESSARY).

525

MICROCONTROLLER CHECKS WHETHER RECEIVED DATA
IS ERROR-FREE (OUTER ERROR CHECK) E.G., BY CHECKING
PARITY BITS, HAMMING BITS, CYCLIC REDUNDANCY CHECK
AND/OR OTHER COMMONLY USED METHODS.

530

MICROCONTROLLER DECRYPTS THE DATA AND
CHECKS THE TYPE OF DATA.

535

MICROCONTROLLER PROCESSES DATA APPROPRIATELY,
ALLOWS ONLY PROCESSING OF MESSAGES, DATA,
UPDATES WHICH ARE CURRENTLY ENABLED (LOOKS UP
ENABLED MODES IN INTERNAL SECURE MEMORY).

540

FIG. 5

DocId: 32362700

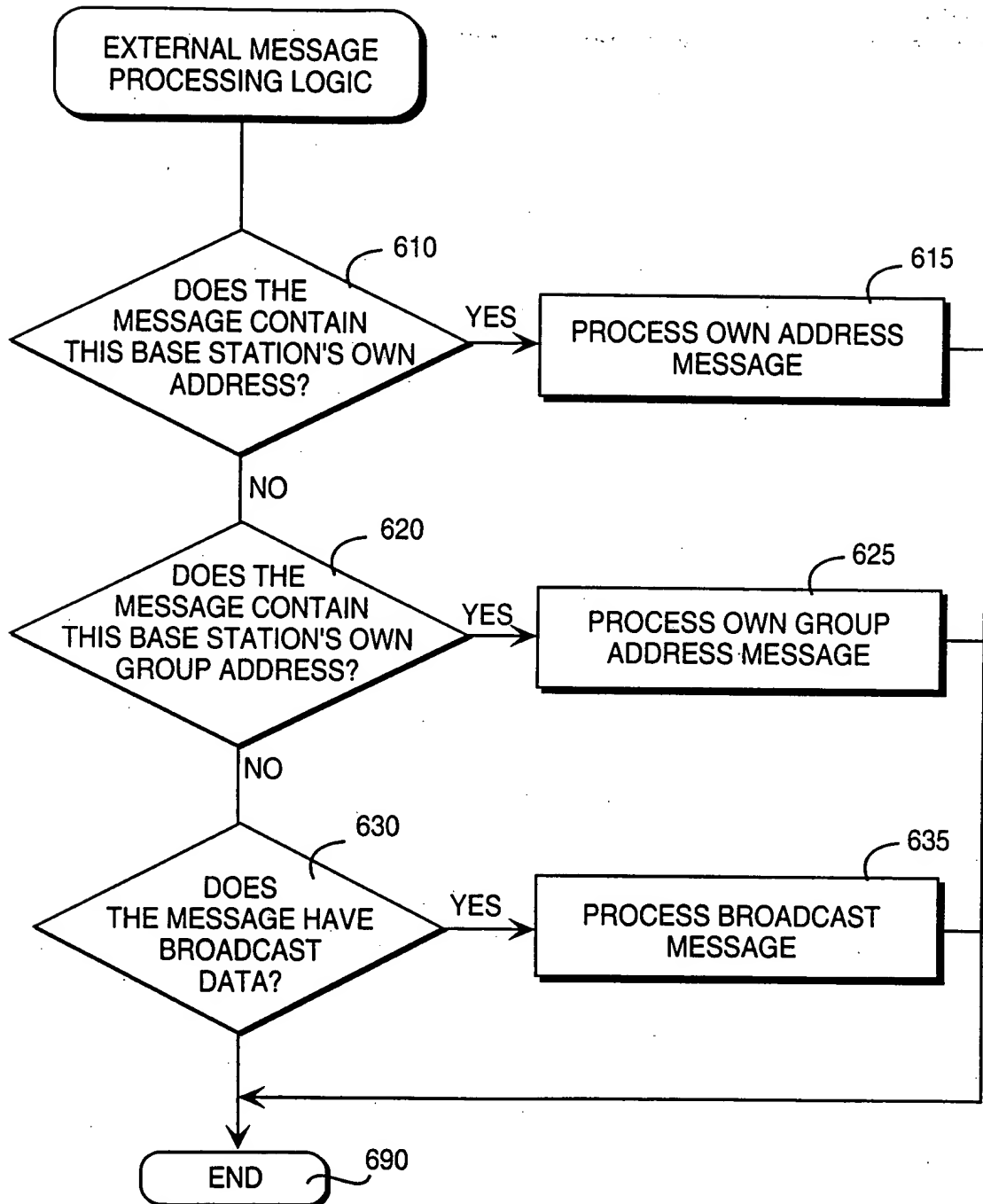


FIG. 6

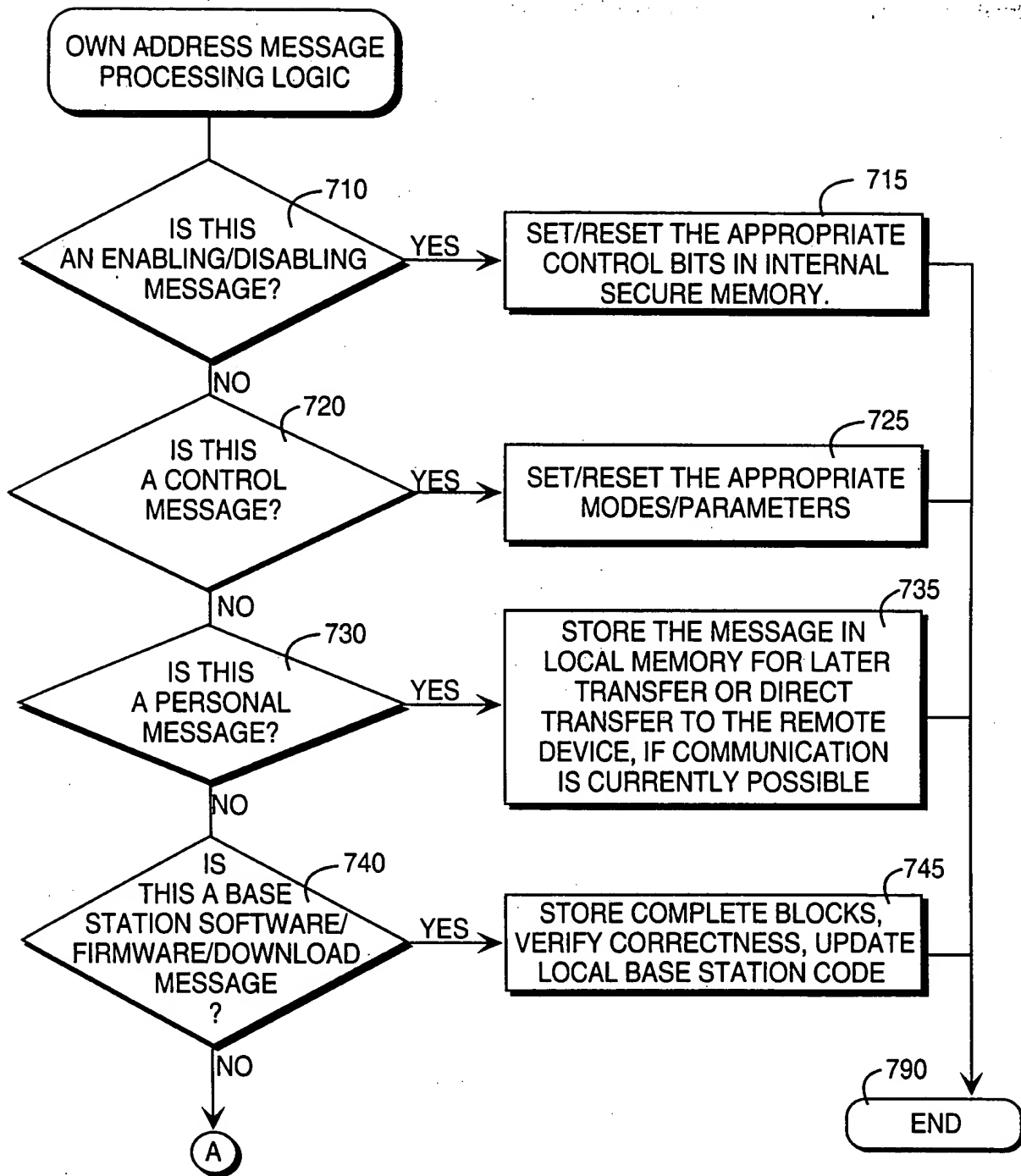


FIG. 7

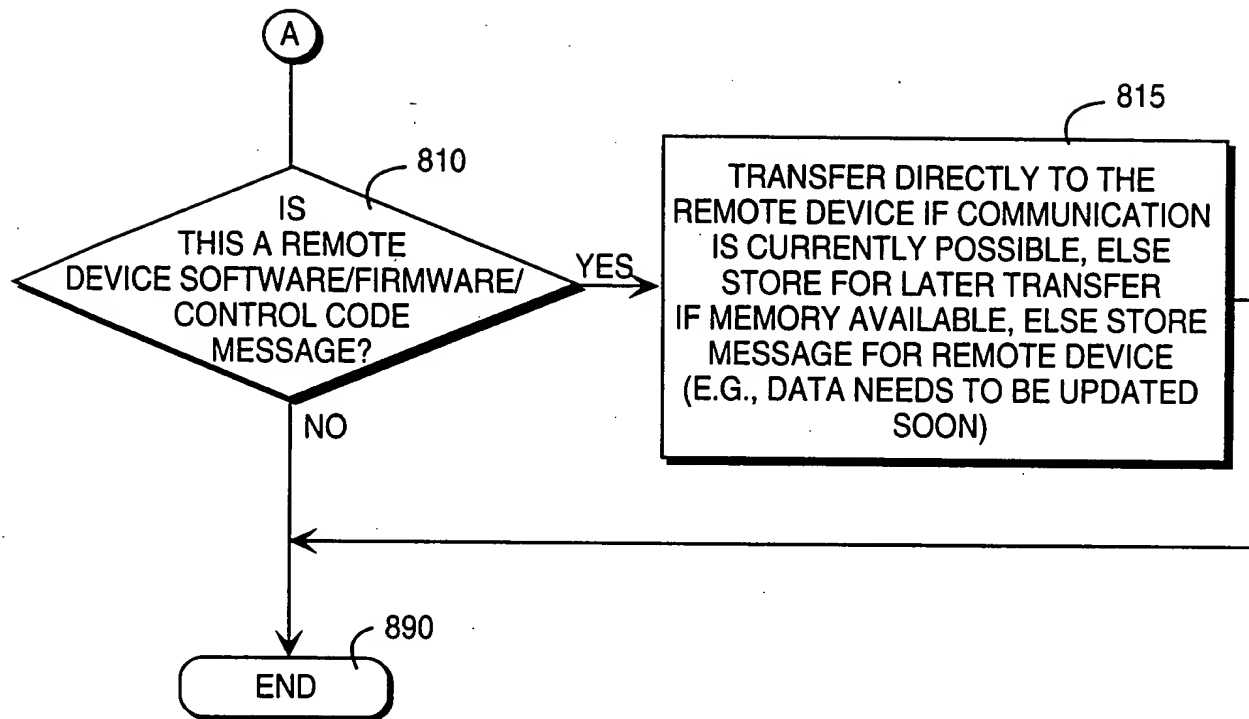


FIG. 8

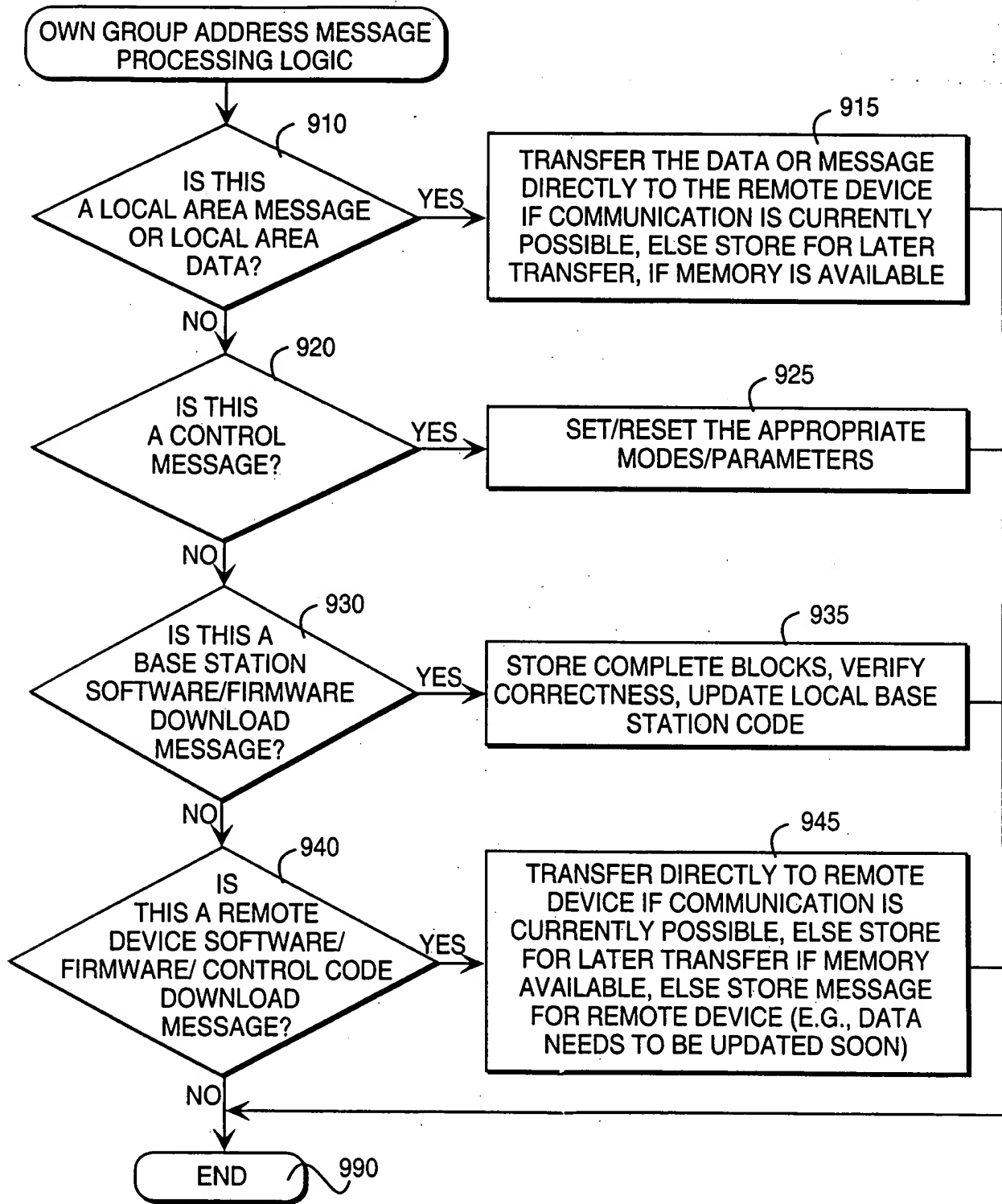


FIG. 9

```

graph TD
    Start([BROADCAST MESSAGE  
PROCESSING LOGIC]) --> 1010{IS THIS  
A GENERAL MESSAGE OR  
GENERAL DATA?}
    1010 -- YES --> 1015[TRANSFER THE DATA OR MESSAGE  
DIRECTLY TO THE REMOTE DEVICE  
IF COMMUNICATION IS CURRENTLY  
POSSIBLE, ELSE STORE FOR LATER  
TRANSFER, IF MEMORY IS AVAILABLE]
    1010 -- NO --> 1020{IS THIS  
A CONTROL  
MESSAGE?}
    1020 -- YES --> 1025[SET/RESET THE APPROPRIATE  
MODES/PARAMETERS]
    1020 -- NO --> 1030{IS THIS A  
BASE STATION  
SOFTWARE/FIRMWARE  
DOWNLOAD  
MESSAGE?}
    1030 -- YES --> 1035[STORE COMPLETE BLOCKS, VERIFY  
CORRECTNESS, UPDATE LOCAL BASE  
STATION CODE]
    1030 -- NO --> 1040{IS  
THIS A REMOTE  
DEVICE SOFTWARE/  
FIRMWARE/ CONTROL CODE  
DOWNLOAD  
MESSAGE?}
    1040 -- YES --> 1045[TRANSFER DIRECTLY TO REMOTE  
DEVICE IF COMMUNICATION IS  
CURRENTLY POSSIBLE, ELSE STORE  
FOR LATER TRANSFER IF MEMORY  
AVAILABLE, ELSE STORE MESSAGE  
FOR REMOTE DEVICE (E.G., DATA  
NEEDS TO BE UPDATED SOON)]
    1040 -- NO --> 1090([END])
    1015 --> 1090
    1025 --> 1090
    1035 --> 1090
    1045 --> 1090

```

FIG. 10

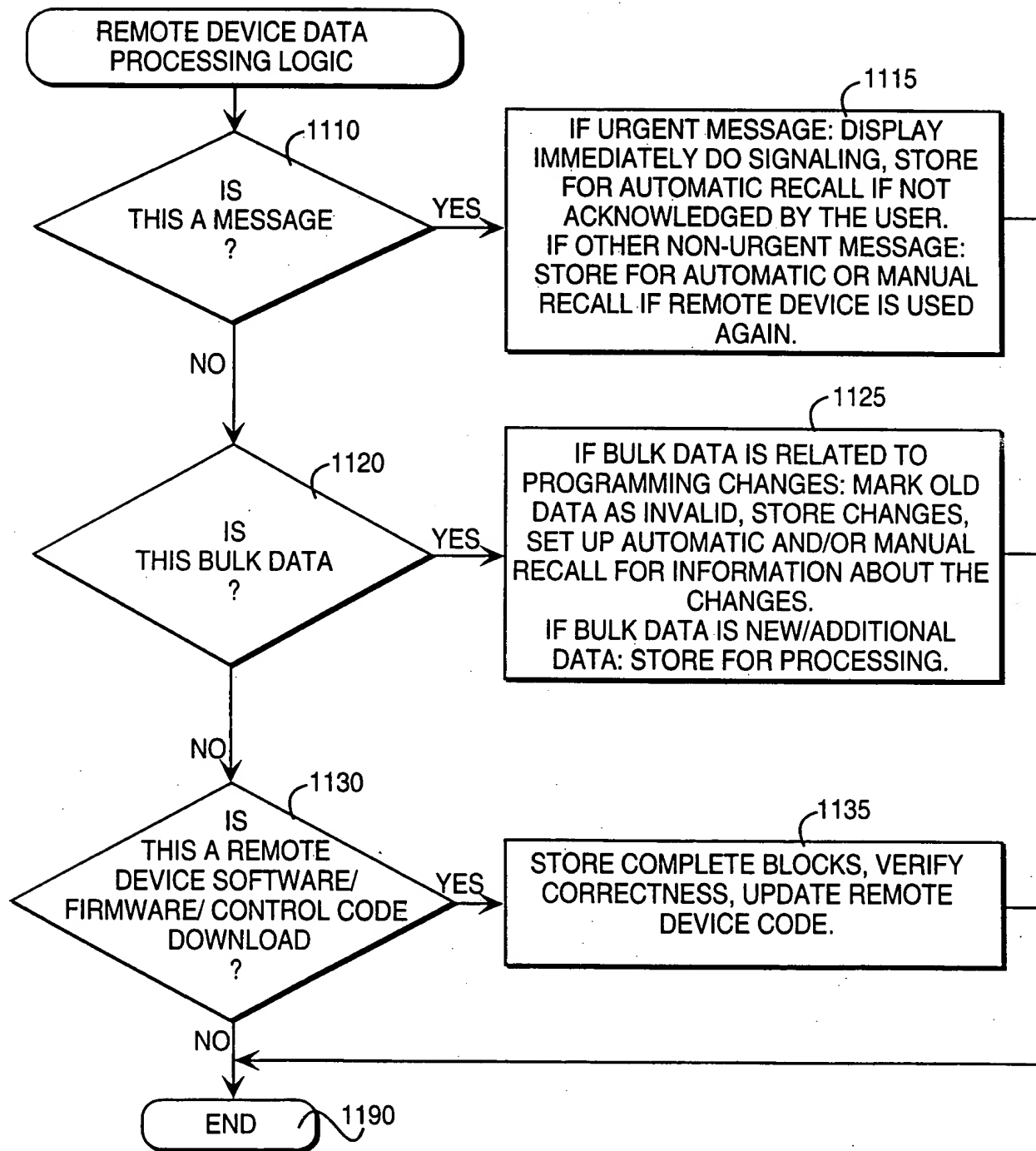


FIG. 11

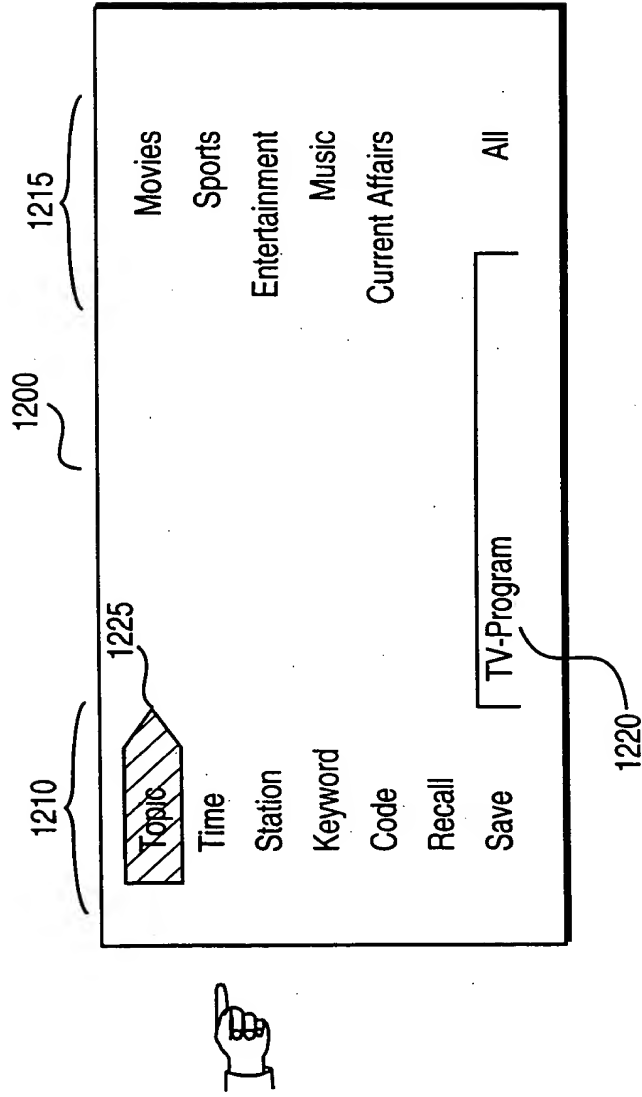


FIG. 12

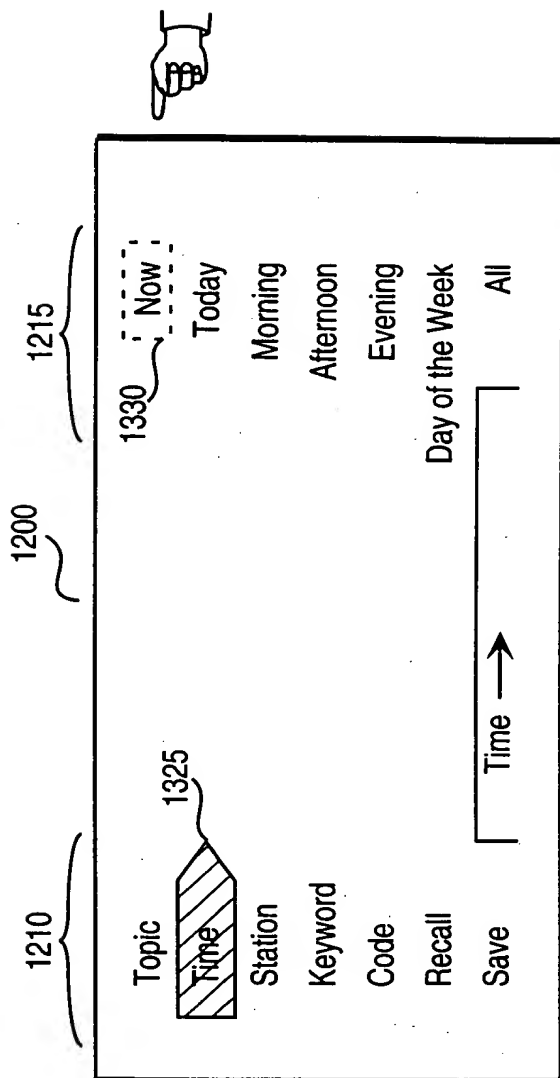


FIG. 13

1400

1410

20.00	ABC	SEINFELD
20.35	CH4	ER
20.55	AMC	GONE WITH THE WIND
22.05	CNN	HEADLINE NEWS
22.45	DIS	BAMBI
23.30	MTV	SOUNDGARDEN LIVE
MARK	TIME →	NOW
		INFO

1415

1220

1417

FIG. 14

1500

20.00	ABC	SEINFELD
20	Disney's classic tale of the forest creatures dealing with the wonders and dangers of growing up in the forest.	
20		
22		
22		
23		
MA		

1510

FIG. 15

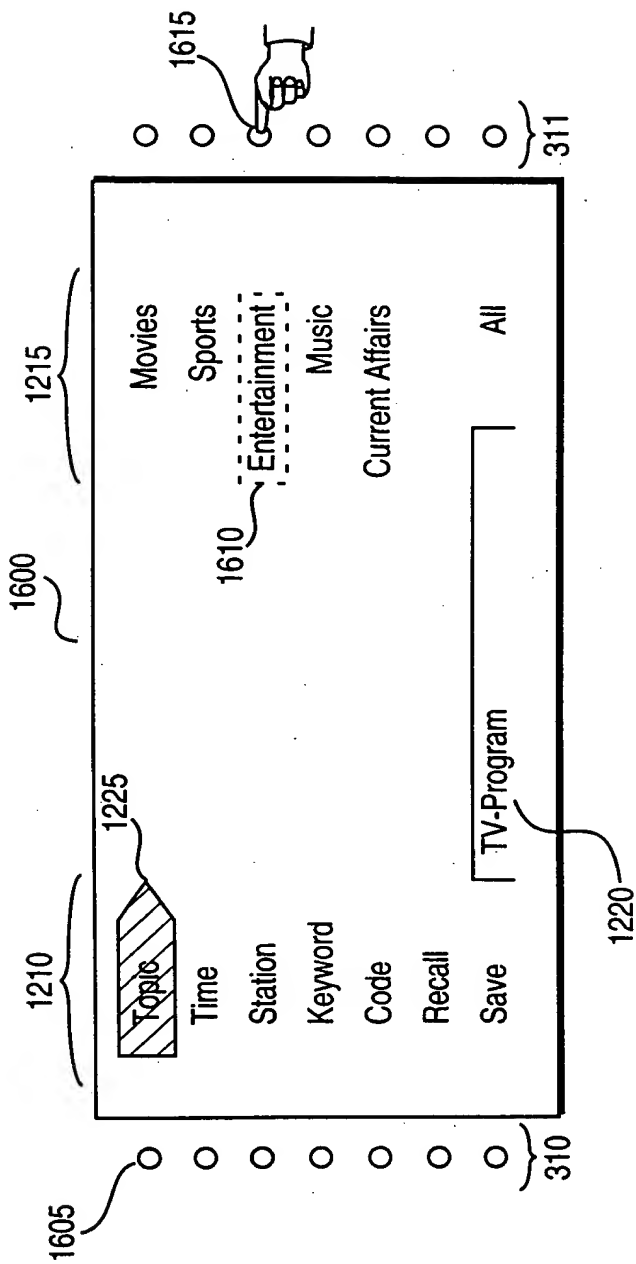


FIG. 16

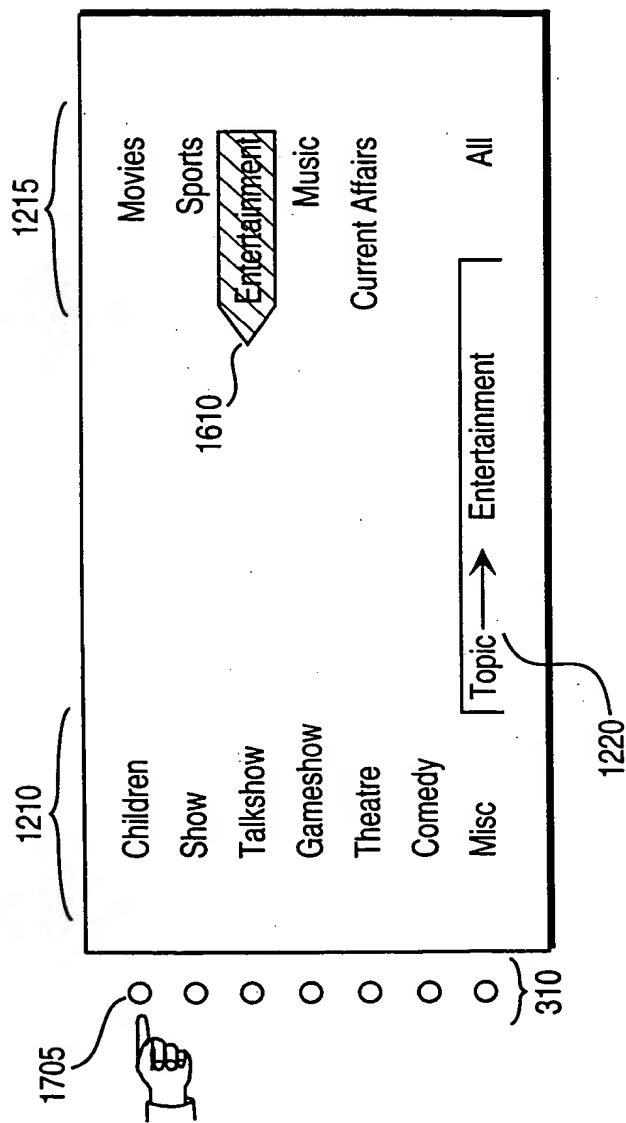


FIG. 17

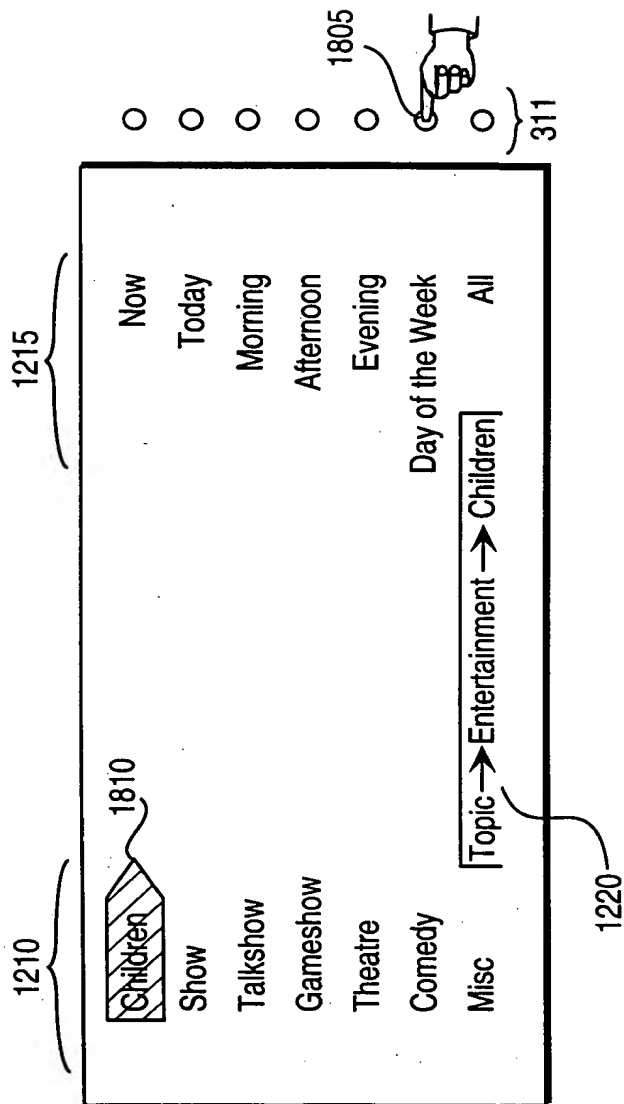


FIG. 18

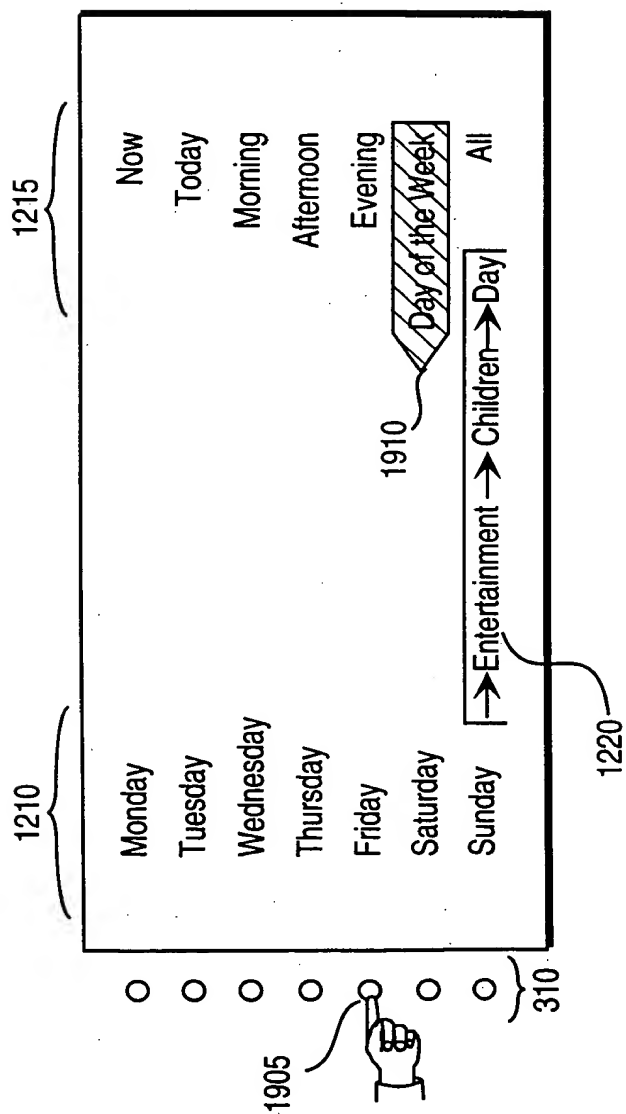


FIG. 19

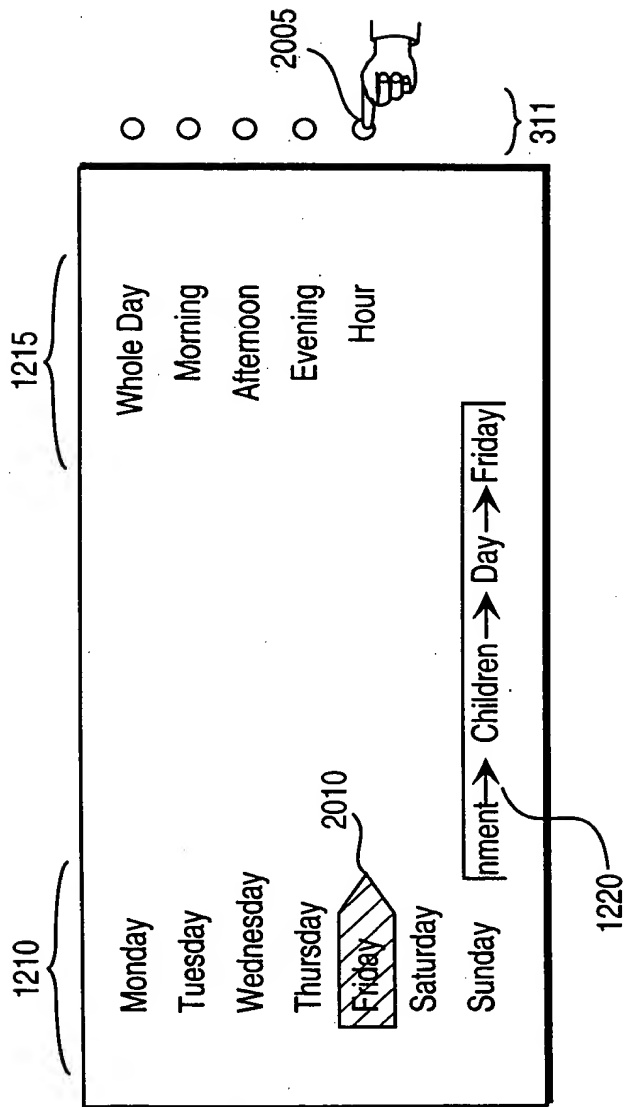


FIG. 20

Enter the time
and confirm with
ok, please.
.....

Whole Day
Morning
Afternoon
Evening

Hour

Children → Day → Friday → Hour

1220

FIG. 21

1720	ABC	SEINFELD
1720	CH4	ER
1720	AMC	GONE WITH THE WIND
1720	CNN	HEADLINE NEWS
1720	DIS	BAMBI
1720	MTV	SOUNDGARDEN LIVE
MARK	Children→Day→Friday→	1720H INFO

1220

FIG. 22

20.00	ABC	SEINFELD
20.35	CH4	ER
20.55	AMC	GONE WITH THE WIND
22.05	CNN	HEADLINE NEWS
22.45	DIS	BAMBI
23.30	MTV	SOUNDGARDEN LIVE
MARK	→ Misc.	→ Evening
		INFO

2305

FIG. 23

20.00	ABC	SEINFELD
20.35	CH4	ED
20.55	AMC	
22.05	CNN	
22.45	DIS	
23.30	MTV	CONTEMPORARY
MARK	→ Misc.	→ Evening
		INFO

THE RECORDING OF BAMBI
TAKES 70 MINUTES. INSERT
A TAPE INTO YOUR VCR AND
PRESS THE PROGR. BUTTON
AGAIN, PLEASE.

FIG. 24

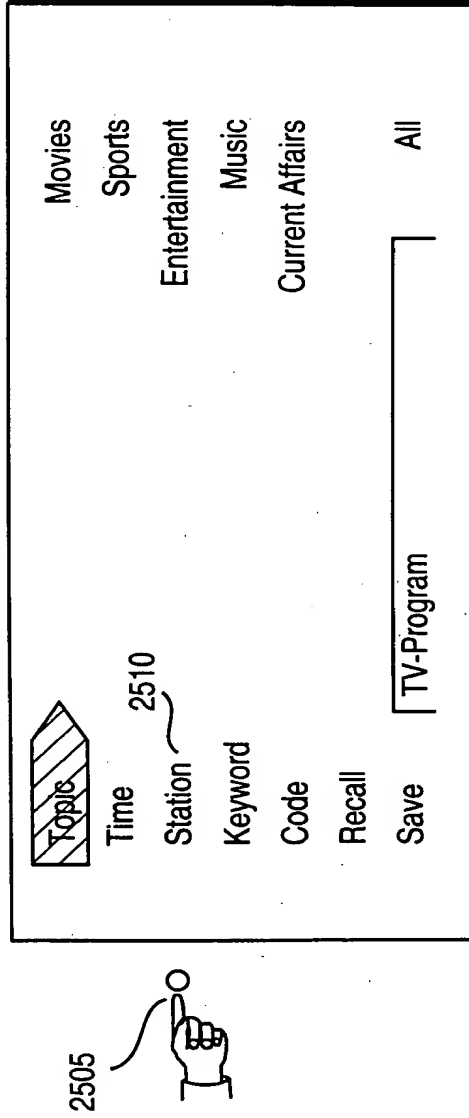


FIG. 25

2615

2610

ARD

ZDF

RTL

SAT 1

PRO 7

RTL 2

ARTE

VOX

DSF

ORF 1

ORF 2

TSR

B 3

TSI

DRS

S 3

S PLUS

TF 1

FR 2

FR 3

EUR

MTV

3SAT

TELECLUB

N 3

W 3

RAI 1

RAI 2

TV 5

TVE

SUP

M 6

Topic

Time

Station

Keyword

Code

Recall

Save

Station →



FIG. 26

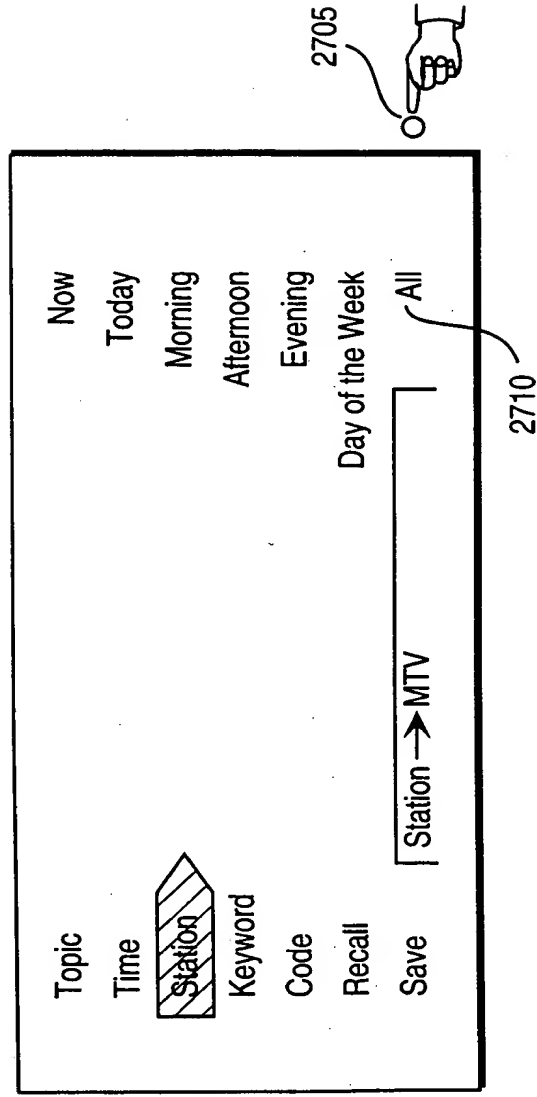


FIG. 27

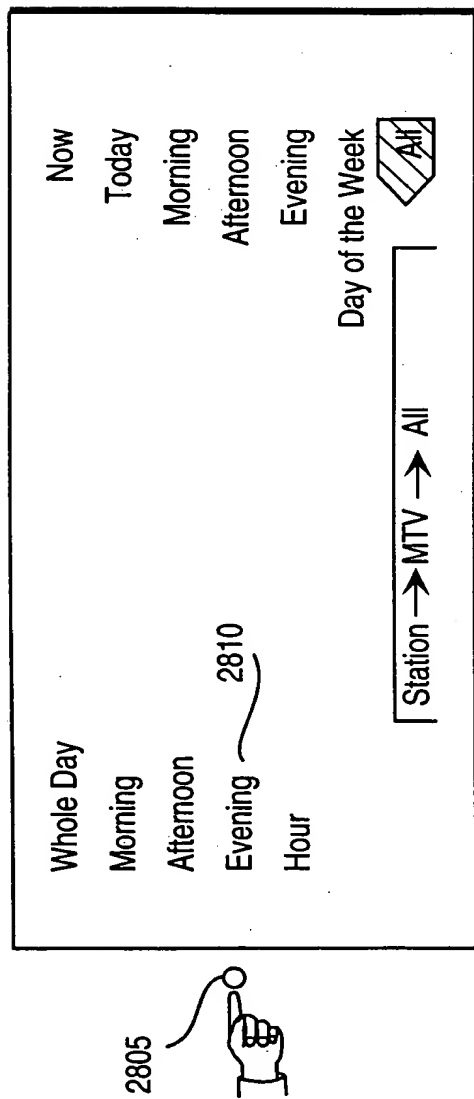


FIG. 28

19.30	MTV	TOP 10 HITS
20.00	MTV	INTERVIEW WITH EDDIE VAN HALEN
20.30	MTV	LATEST VIDEOS
22.55	MTV	PREVIEWS
21.00	MTV	U2 IN CONCERT
23.00	MTV	ROCK NEWS
MARK	Station → MTV → All → Evening	INFO

FIG. 29

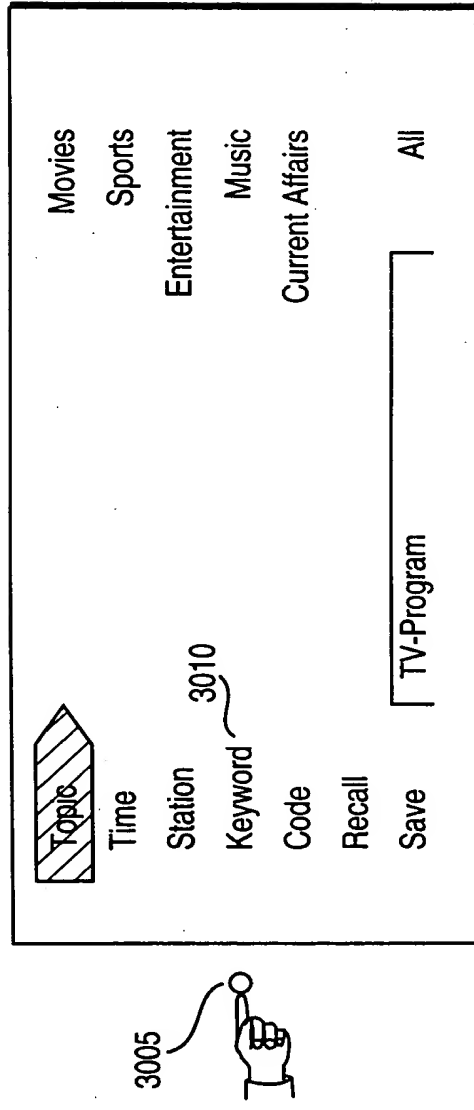


FIG. 30

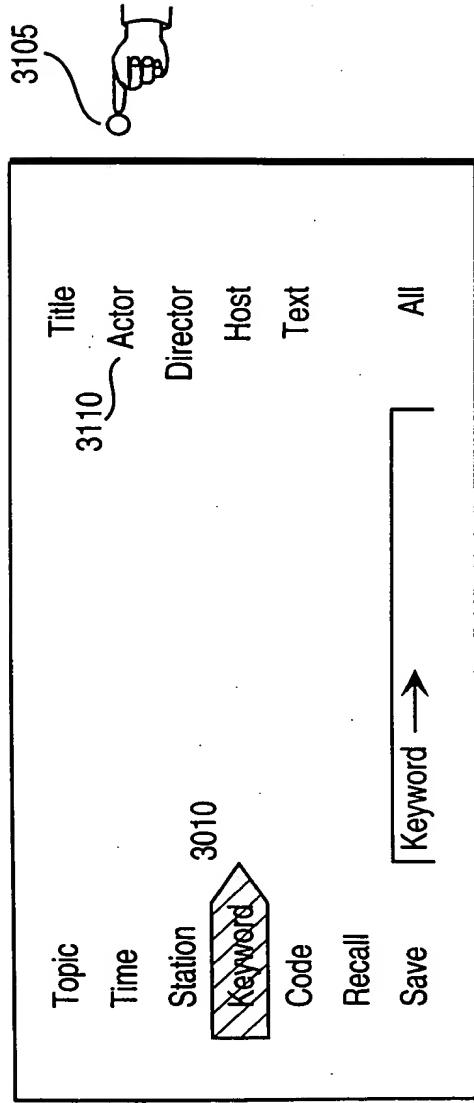


FIG. 31

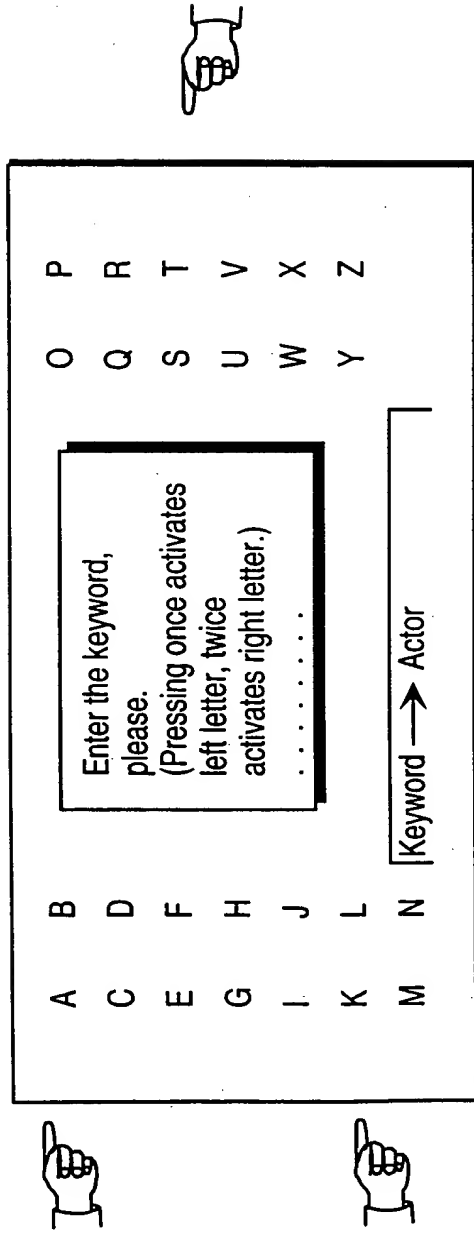


FIG. 32

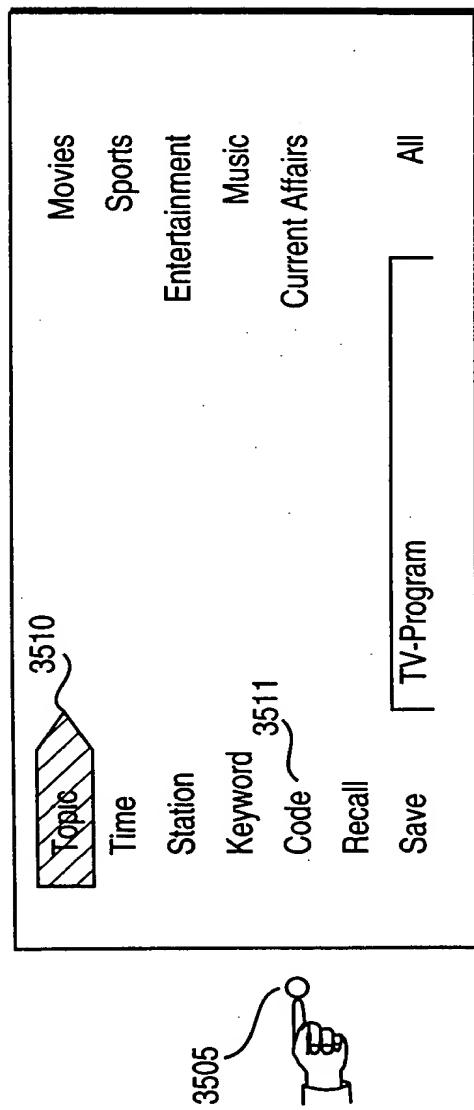


FIG. 35

Topic	<div>Enter code please. Channel 00-99, Day 1 (Mon)-7(Sun), Hours 00-23, 00-59 -----</div>
Time	
Station	
Keyword	
<div>Code</div>	
Recall	
Save	<div>Code →</div>

FIG. 36

SECRET BEB6E46D

22.10 NBC NEWS		
MARK	Code → 07.5.22.10	INFO

FIG. 37

Topic

Time

Station

Keyword

Code

Recall

Save

3810

TV-Program

All

Movies

Sports

Entertainment

Music

Current Affairs

3805



FIG. 38

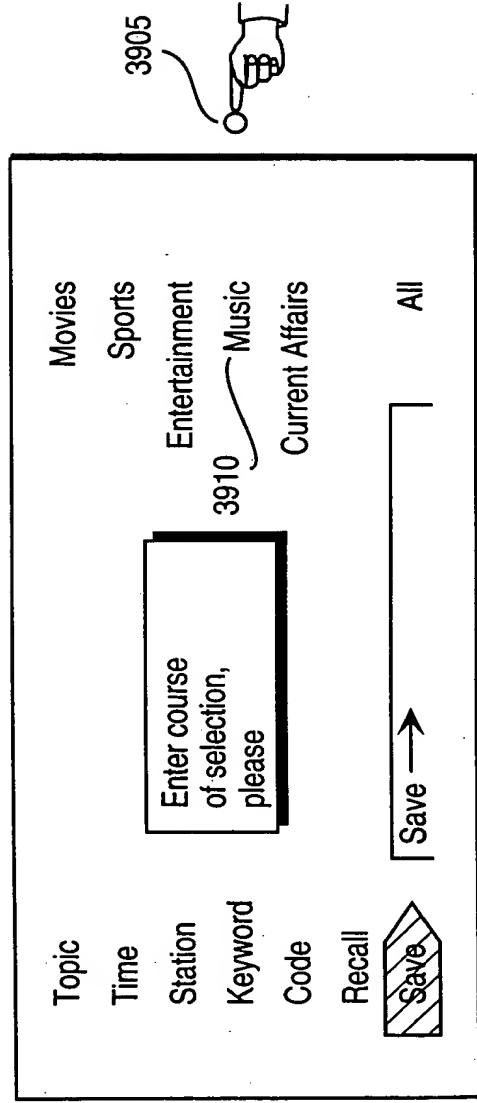


FIG. 39

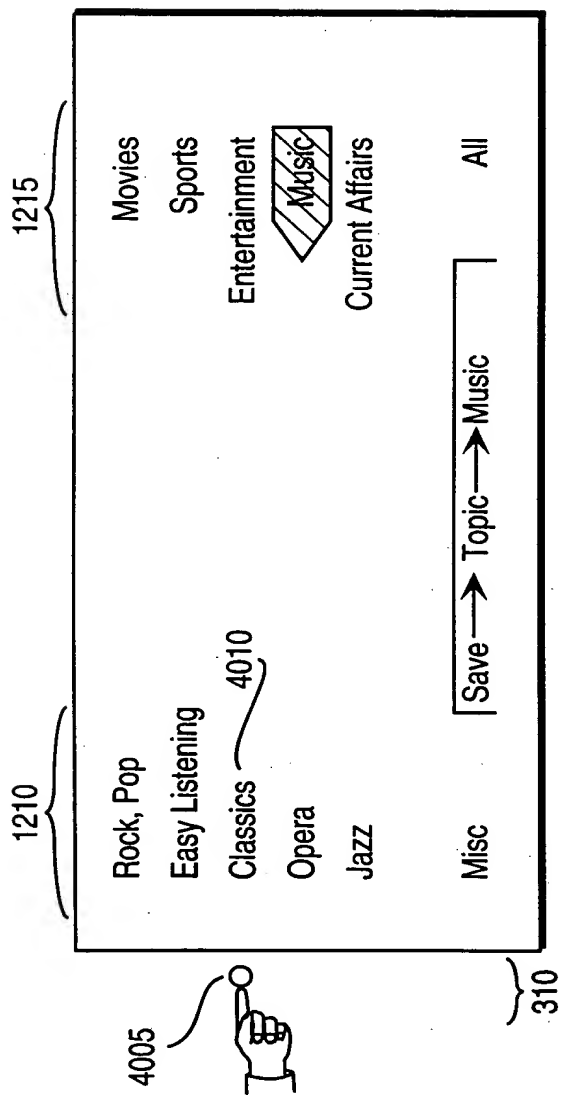


FIG. 40

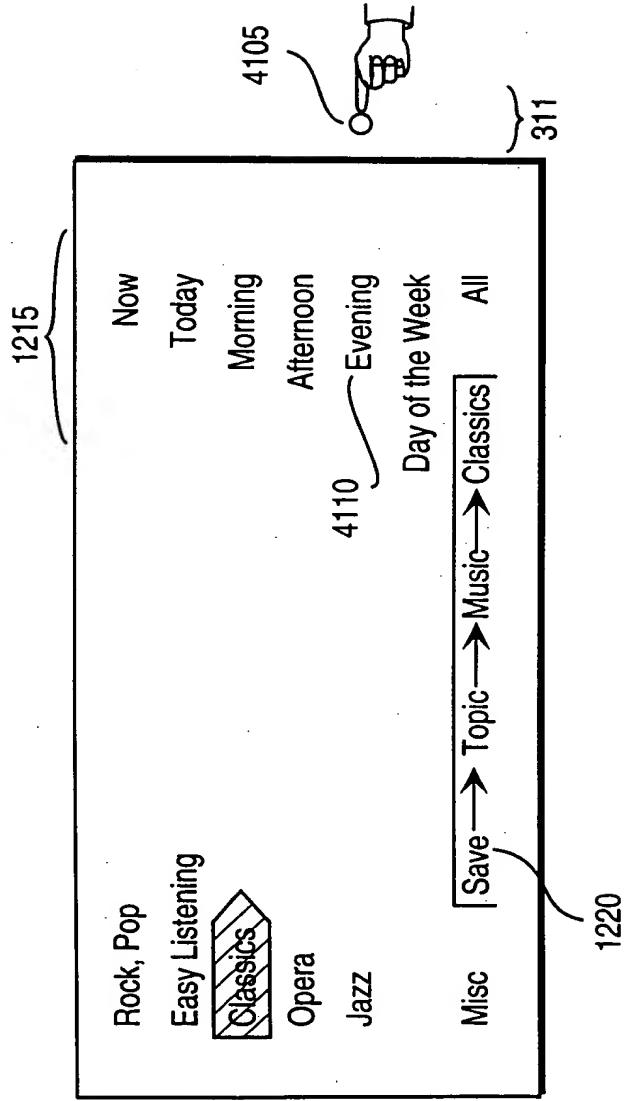


FIG. 41

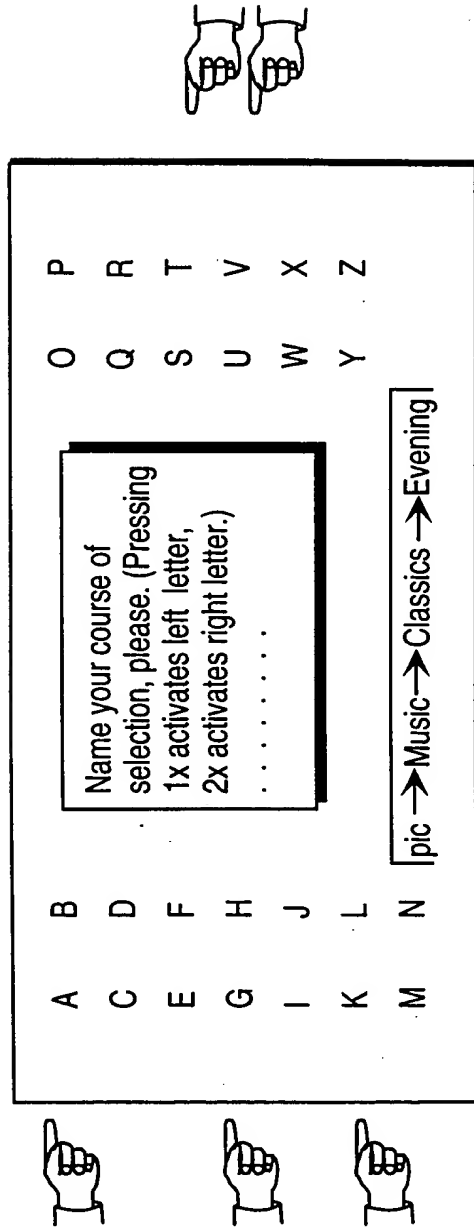


FIG. 42

20.00	ABC	LIVE AT THE MET
20.35	CH4	BOSTON POPS
20.55	AMC	AMADEUS
22.05	NBC	CLASSICAL HOUR
22.45	CH11	NY PHILHARMONIC
23.30	CH25	BEETHOVEN SYMPHONIES
MARK	pic →	Music → Classics → Evening INFO

FIG. 43

4405

Topic

Time

Station

Keyword

Code

Recall

Save

Movies

Sports

Entertainment

Music

Current Affairs

All

TV-Program

FIG. 44

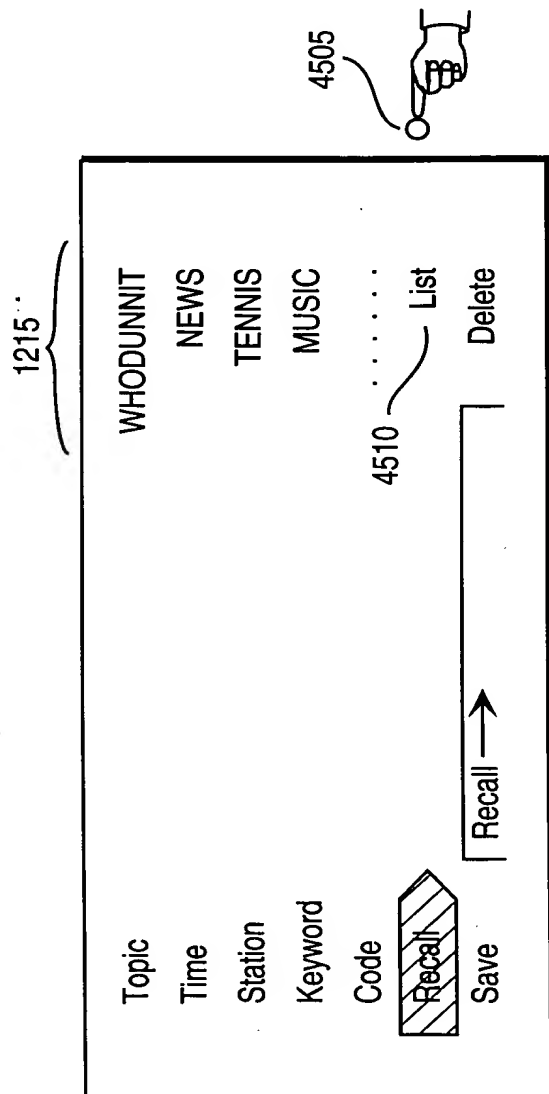


FIG. 45

[illegible]

May 15, 1998			
20.35	CH4	ER	
May 16, 1998			
22.05	CNN	HEADLINE NEWS	
May 17, 1998			
23.30	MTV	SOUNDGARDEN LIVE	
MARK	Recall →	List	INFO

FIG. 46

Topic		Movies
Time		Sports
Station		Entertainment
Keyword		Music
Code	4710	Current Affairs
Recall		
Save	TV-Program	All

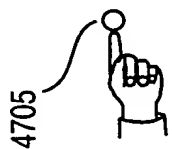


FIG. 47

1215

Topic	WHODUNNIT
Time	NEWS
Station	TENNIS
Keyword
Code
<div>Recall</div>	List
Save	Delete

Recall →

FIG. 48

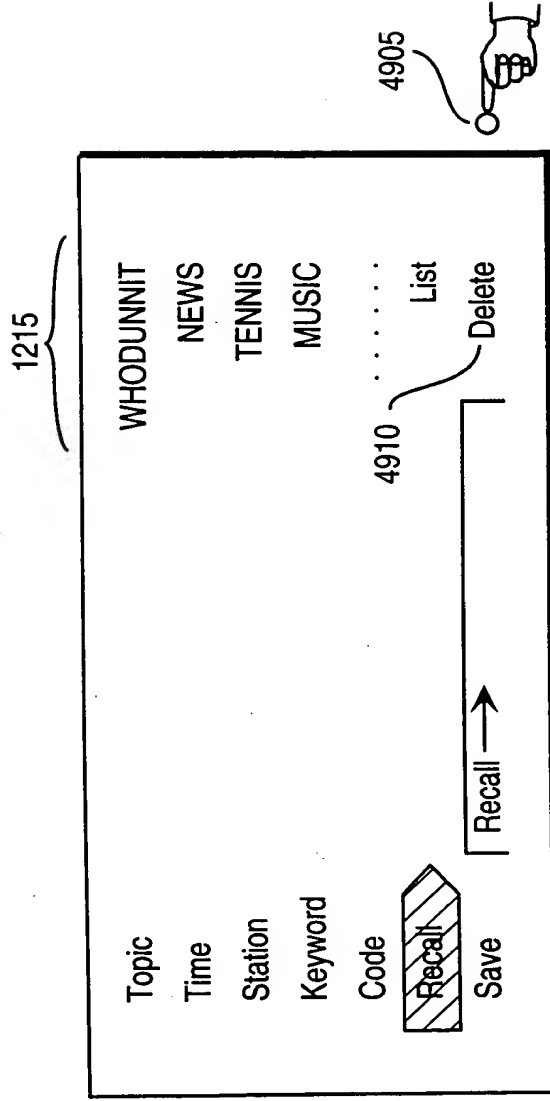


FIG. 49

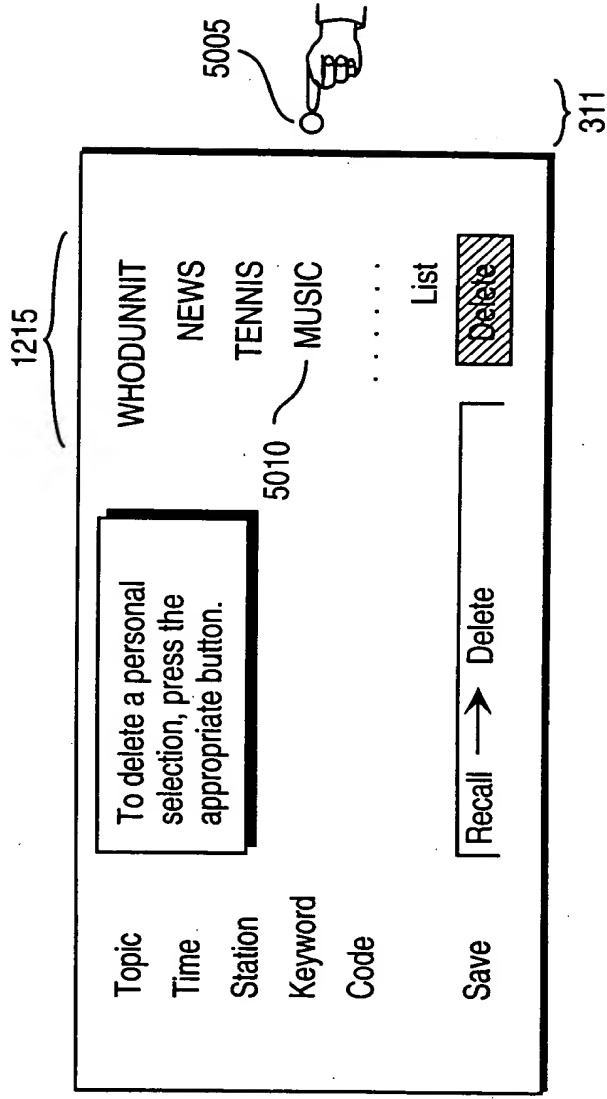


FIG. 50

Topic	WHODUNNIT
Time	NEWS
Station	TENNIS
Keyword	MUSIC
Code
Save	List
	<input type="button" value="Recall"/> → <input type="button" value="Delete"/>
	<input type="button" value="Delete"/>

To delete a personal selection, press the app

To confirm that you want to delete your personal selection MUSIC press ok, please.

FIG. 51

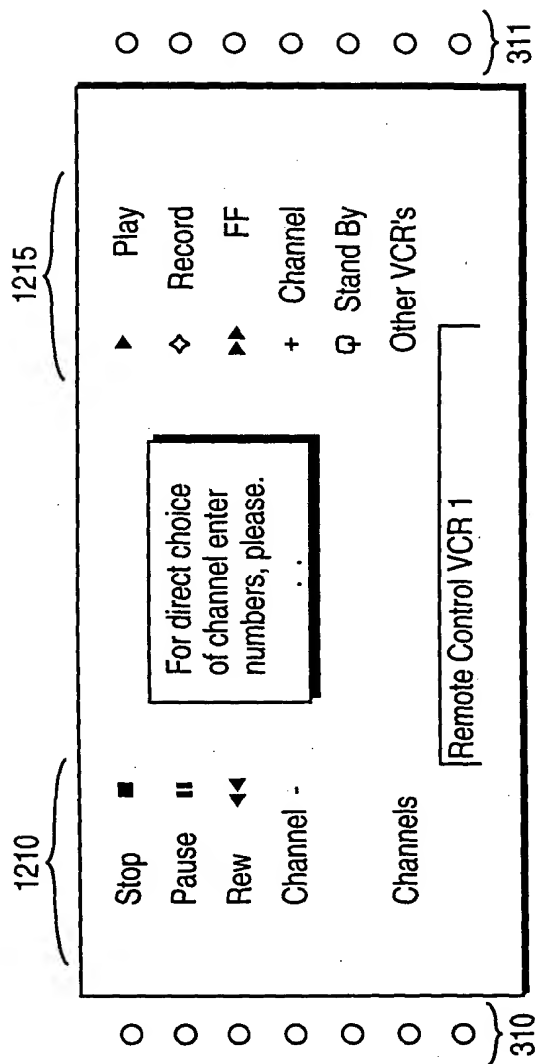


FIG. 52





Vol. down 	 +	Vol. up
Channel -	+	Channel
Mute 		Stand By
Channels	Other TV-sets	
<div style="border: 1px solid black; padding: 5px; text-align: center;"> For direct choice of channel enter numbers, please. ... </div>		
<div style="border: 1px solid black; padding: 5px;"> Remote Control TV 1 </div>		

FIG. 53

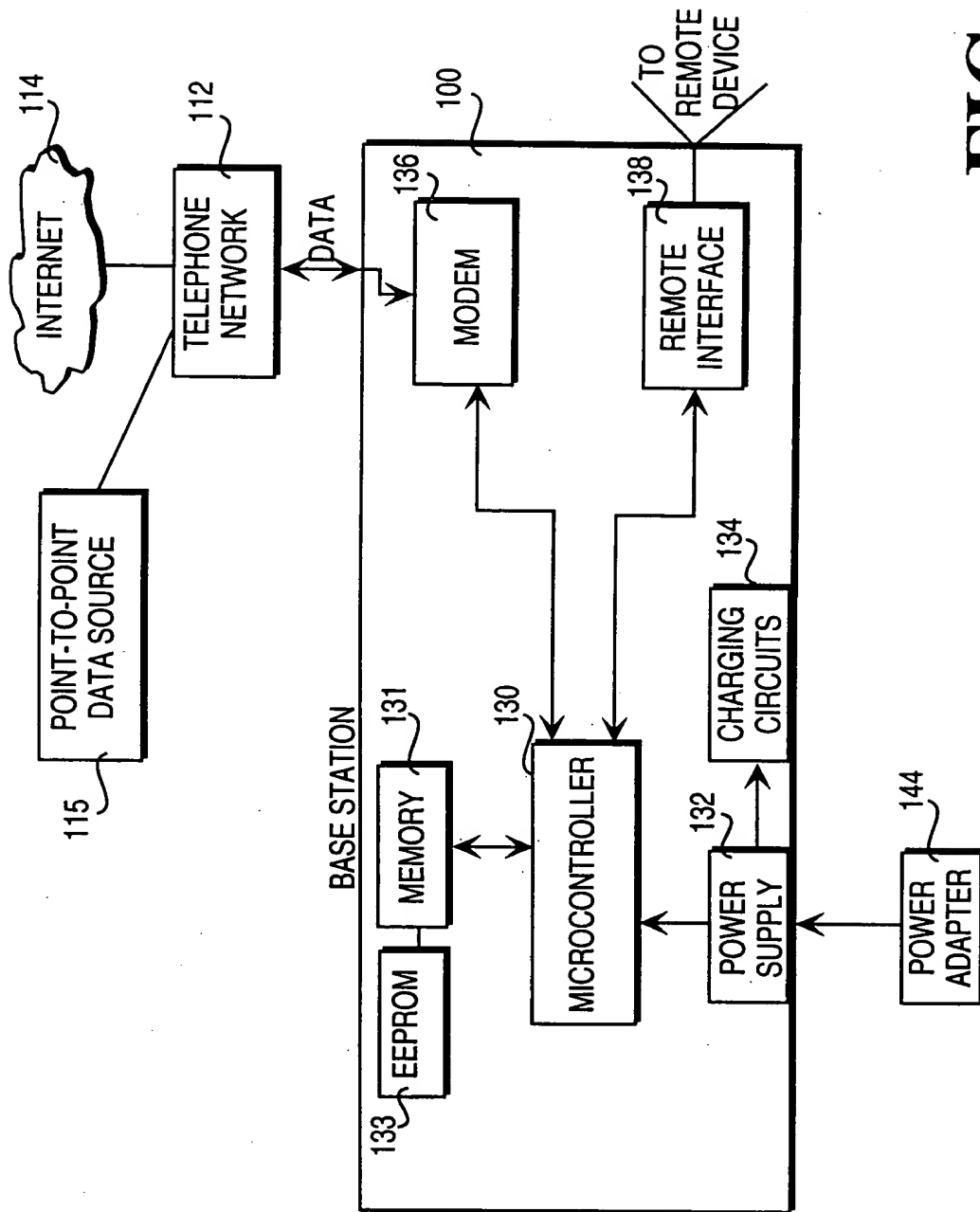


FIG. 54

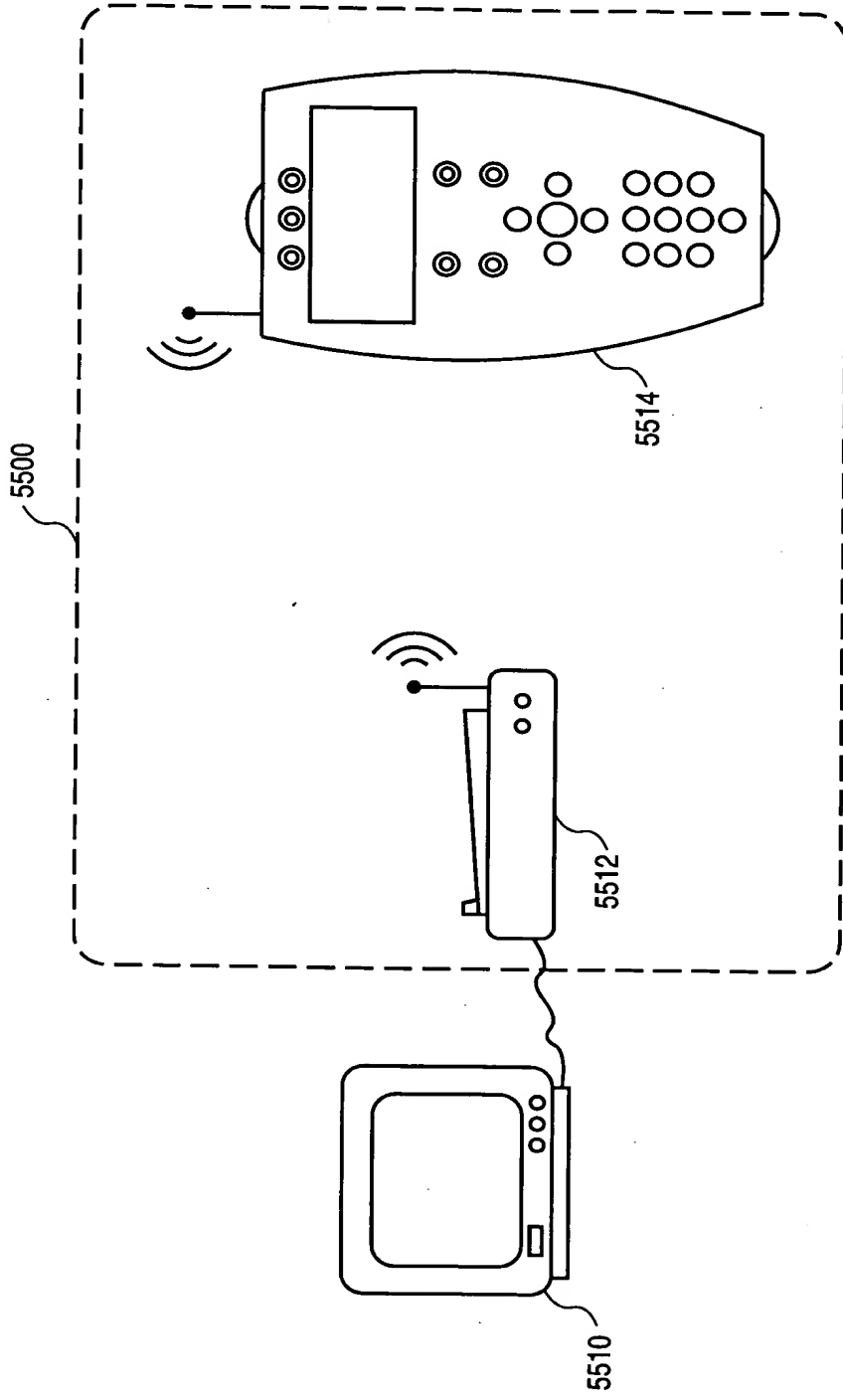


FIG. 55

5512

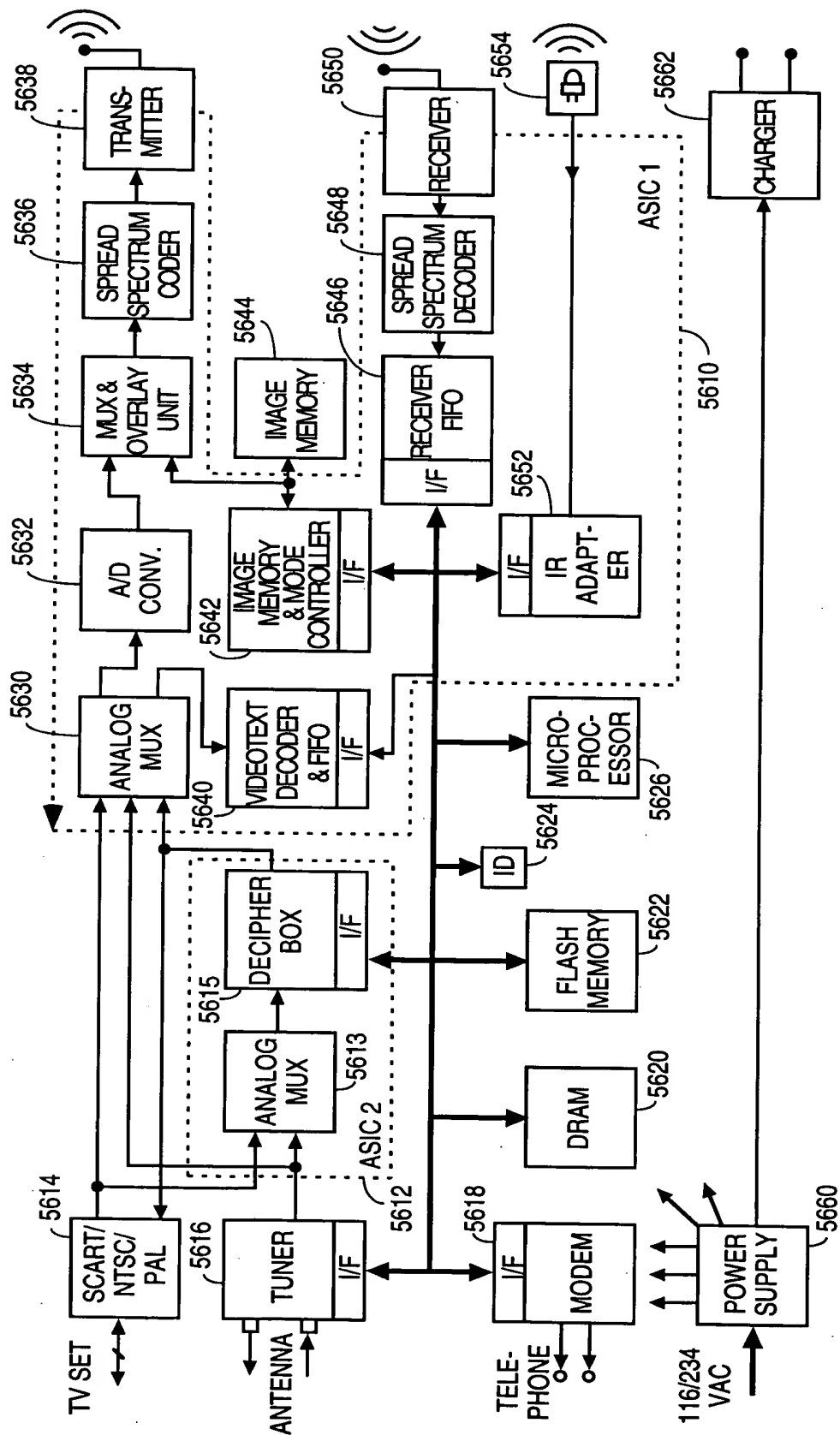


FIG. 56

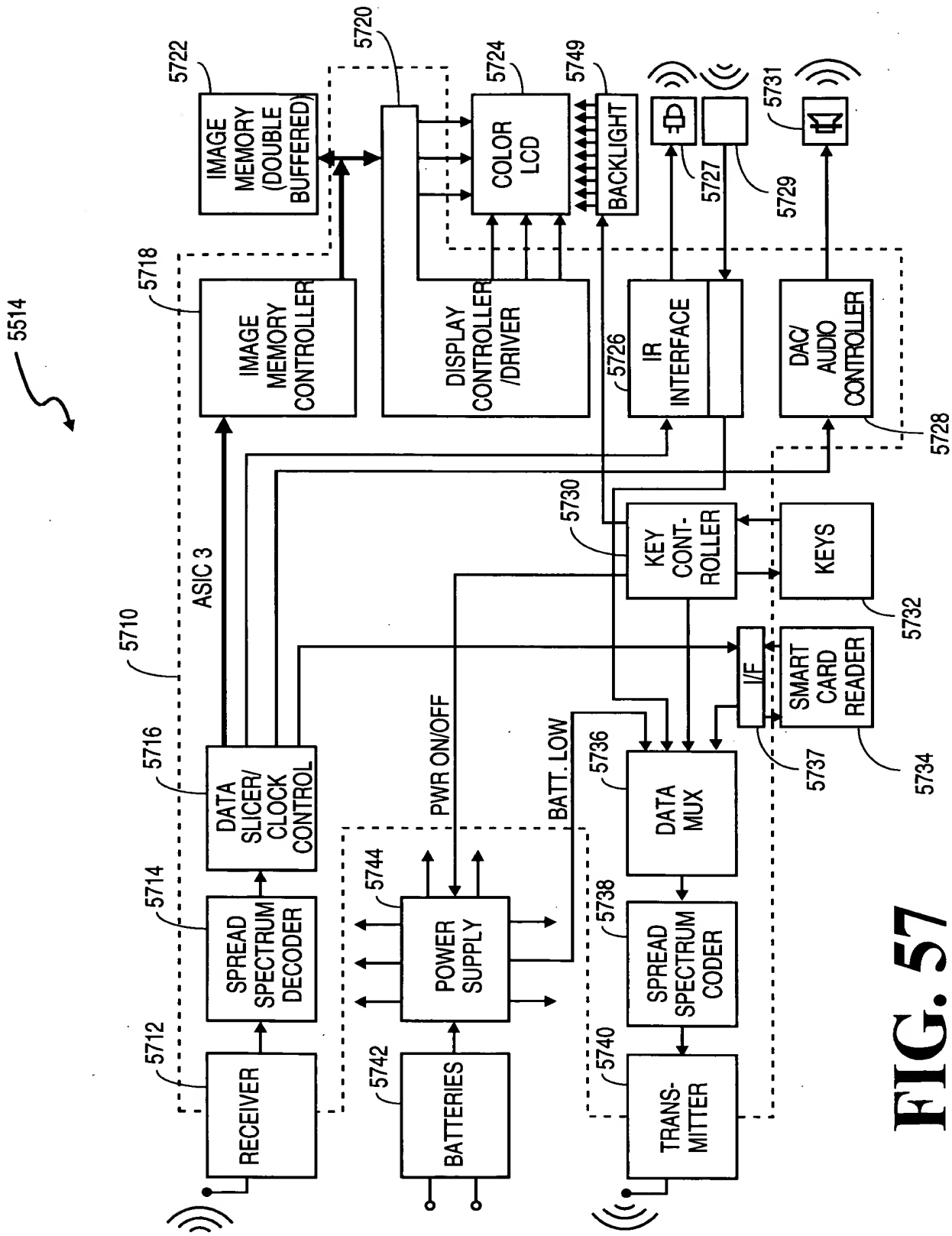


FIG. 57